



# POLY FLEX

## SBS Modified Bitumen Membrane



### Description:

**POLY FLEX** is high performance prefabricated waterproofing membrane especially formulated and composed of selected distilled bitumen modified with S.B.S Polymer resin ,antioxidant ,but with reinforcing carrier of non-woven polyester

**POLY FLEX** extra strength can be considered of particular use in jobs subject to expansion and contraction.

### Features:

- Resistant to ageing
- Stable at high temperature
- Strong adhesion to concrete substrate
- Chemically stable
- Resistant to tear and puncture
- Root proof
- Resistant to organic salt solutions, dilute acids, alkalis, sulfate and chloride
- Flexible at low temperature
- Compatible with most roofing product
- Flashing made on the spot by using same membrane
- Easy to apply
- Resistant to UV

### Uses:

Waterproofing for Roofs, Retaining walls, Terraces, underground foundation, basement, tank where high flexibility is needed for shaping corners, edges

### Application Instruction:

- Surfaces onto which the membrane is to be applied must be sound, clean and dry. Dust, loose material and protrusions must be removed and cracks, holes etc. made good.
- Priming: Apply one coat of **AIWIN PRIMER** or **AIWIN PASTA 3** to all surfaces and allow it to dry. Primed surfaces must be covered within the same day. If left exposed for longer periods, clean and re-prime before applying the membrane.
- Membrane Application: Position the rolls carefully with the correct orientation before the torching operation begin. Heat the lower surface of the rolls with a propane gas torch and unroll as the bitumen begins to melt. Maintain minimum 10cm side laps and 10cm end laps between rolls, staggering the joints where possible. All seams must be heat sealed from the top to ensure watertight laps.
- The membrane may be loosely laid partial or fully bonded, depending on the Structure and specifications.

### Storage and material Handling:

The rolls should always be stored vertically in shaded area .normally the plates should not be stacked one over the other however ,if a wooden board is used in between ,two pallets may be stacked one over the other

### Health & Safety:

- Roofing torches have been successfully used for many years how ever since an open flame is present, fire extinguishers should be available in the site
- Labor should wear personal protective tools such as gloves and goggles during application



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### TECHNICAL SPECIFICATIONS

CHARACTERISTICS	STANDARD	VALUES		
		160g/m <sup>2</sup> polyester	180g/m <sup>2</sup> polyester	200g/m <sup>2</sup> polyester
ROLL DIMENSION	EN 1848-1	1 X 10m ± 1%	1 X 10m ± 1%	1 X 10m ± 1%
SURFACING		PE film or colored slates (white ,Gray,Red,Green ) or Aluminum foil		
REINFORCEMENT	BS747	160g/m <sup>2</sup> Polyester	180g/m <sup>2</sup> Polyester	200g/m <sup>2</sup> Polyester
THICKNESS ± 5%	ASTM D5147 / EN 1849-1	3,4,5 mm	3,4,5 mm	3,4,5 mm
MEMBRANE WEIGHT	ASTM D5147	3,4,5 Kg/m <sup>2</sup>	3,4,5 Kg/m <sup>2</sup>	3,4,5 Kg/m <sup>2</sup>
PUNCTURE RESISTANCE @ N	ASTM D5147	(Class L4) > 450 N		
PENETRATION AT 25°C, DMM	ASTM-D5	25 ±5	25 ±5	25 ±5
SOFTENING POINT °C	ASTM-D36	≥110	≥120	≥120
COLD FLEXIBILITY	ASTM D5147 / EN 1109	-10°C	≤-15°C	≤-20°C
TENSILE STRENGTH(L)	ASTM D 5147 /EN 12311-1	650 N/5 cm	850N/5 cm	900N/5 cm
TENSILE STRENGTH(T)	ASTM D 5147 /EN 12311-1	550 N/5 cm	750 N/5 cm	800 N/5 cm
ELONGATION (L)	ASTM D 5147 /EN 12311-1	35%	42%	50%
ELONGATION (T)	ASTM D 5147 /EN 12311-1	40%	50%	55%
TEAR STRENGTH (L)	ASTM D4073	220 N	360 N	480 N
TEAR STRENGTH(T)	ASTM D4073	210 N	340 N	450N
HYDROSTATIC RESISTANCE	ASTM D5385	Watertight after 24 hrs. under 6m of water		
WATER ABSORPTION	ASTM D 5147	Less than 1%		
WATER VAPOR TRANSMISSION	ASTM E96	≤0.5 g/m <sup>2</sup> /24hr		
DIMENSION STABILITY	ASTM D 5147 /EN 1107-1	Stable at 90°C		
FLOW RESISTANCE IN VERTICAL AT 90°C	EN 1110	≤0.5 mm	≤0.5 mm	≤0.5 mm
AGEING	ASTM D4799	No signs of deterioration		
LAP JOINT STRENGTH	EN12317-1-LONG EN12317-1-TRANS	600 N/5cm 500 N/5cm	800 N/5cm 700 N/5cm	900 N/5 cm 800 N/5cm
WATER TIGHTNESS TO LIQUID WATER	EN 1928-1	> 400 Kpa	> 400 Kpa	> 400 Kpa >
DIELECTRIC CONSTANT (K)	ASTM D-150	2.5	2.5	2.5
DIELECTRIC RIGIDITY		14kv /mm	14kv/mm	14kv/mm
AVERAGE GRANULES LOSS FOR MINERAL SLATED FINISH	ASTM -D4977	Less than 200 g/m <sup>2</sup>		
REACTION TO FIRE	EN 13501	Euroclass F	Euroclass F	Euroclass F
VOC		<50 ppm	<50 ppm	<50 ppm
CHEMICAL RESISTANCE		Membranes are resistance to chloride salts, sulphate and phosphate found in ground water		

This technical data complement to ASTM, B.S, and UEAtc.

This product data sheet supersedes all previous data publication pertaining to this product.

All values given refer to standard production within the usual factory tolerance.

(Variation of ±5% in thickness, ±10% in weight, and 20% in tensile and 15% in elongation is acceptable according to standard).

Aiwin reserve the right to change said values without advance notice but without affecting the quality of the product.